

REMARKS

Reconsideration of the above-identified application is respectfully requested.

A terminal disclaimer pursuant to 37 C.F.R. § 1.321(c) to overcome the double patenting rejection will follow shortly

Applicant submits that the above amendments do not add new subject matter as support for the amendments may be found in the specification as originally filed.

Specifically, support for amended claim 28 may be found on pages 23-26, which state that the component is suitable for use in "molten melts which include magnesium."

Components used for moving metals in a bath of molten metal are defined on page 1, lines 22-28. Included in the list are pump shafts...connecting a motor to an impeller.

Other components are defined on page 6, lines 36-38 as "pumping member, bearings, support posts, and shaft." Support for new claim 34 may be found on page 8, lines 1-3, which state, "The composition is selected to provide a super alloy which is resistant to surface dissolution by magnesium in molten metal baths."

The Examiner has rejected claim 29 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 29 has been amended to identify the components.

The Examiner has further rejected claim 28 under 35 U.S.C. §102(b) as being clearly anticipated by JP 63274740, JP 09049051, JP 11293410, or JP 08325673.

Applicant respectfully traverses.

The abstracts of the cited prior art refer to an alloy material. They do not, however, anticipate a component compound of an alloy for use "in molten melts which

include magnesium” as claimed in claim 28 of the present invention. JP 63274740 is directed to a sintered rocker arm of a V-type 6-cylinder gasoline engine. Such an engine is not intended to contact molten magnesium. JP 09049051 is directed to surface layers of rolls made of iron alloys to improve resistance against heat cracking and surface roughening without deteriorating wear resistance due to segregation of Ce and B at grain boundaries. JP 11293410 is directed to hardened steel having good mechanical properties. JP 08325673 is directed to rolls suitable for use in hot strip mills. Nowhere do the cited references suggest the use of the alloys for submersion in molten magnesium. The present invention states that is known that alloys have a relatively short life because of the destructive effects of the molten magnesium on the components contacting the molten metal (page 1, lines 22-25). The cited references do not suggest an ability to overcome this problem. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 2-27 and 29 have been rejected under 35 U.S.C. §103 as being unpatentable over JP 63274740, JP 09049051, JP 11293410, or JP 08325673. Applicant respectfully traverses.

As stated above, the cited abstracts do not suggest the use of the alloys in molten magnesium. Importantly, the Examiner has concluded that claims 28, 29 and 2-27 include limitations to a component of equipment. Moreover, the Examiner separated these claims via restriction from alloy claims. Accordingly, the claimed limitations to a component for use in molten magnesium has already been given meaning in the claims by the Examiner. While it is true that a mere statement of a new use for an otherwise old or obvious composition cannot render a claim to the composition patentable, when that

use is unobvious and novel, the claim is patentable. It would not be obvious from the cited art that the present invention would have a higher resistance to molten magnesium. Additionally, the claims include in the body "a structure which refers back to, is defined by, or otherwise draws life and breath from the preamble" as required to provide patentable weight. Moreover, the function and/or structure of the component would be clear to one skilled in the art upon reading and understanding the specification. The claimed component does not, therefore, read on the cited references due to the claimed use in melts including molten magnesium.

Furthermore, Applicants note the Examiner has failed to address dependent claims of the subject application. Accordingly, any further Office Action maintaining the rejection of all claims would be prematurely made final. More particularly, each of the references cited by the Examiner is outside of the claimed ranges as follows and no explanation has been provided as to why the skilled artisan would select Applicant's claimed range for each of the recited constituents as opposed to the range disclosed in the references of record.

More particularly, with respect to JP 63274740, the reference fails to suggest the boron requirements of claims 4 and 5, phosphorous requirements of claim 7, or the tungsten requirements of claims 14 and 15.

With respect to JP 08325673, the reference fails to teach the carbon requirements of claim 3, the sulfur requirements of claim 28, the phosphorous requirements of claim 28, the chromium requirements of claim 8, the silicon requirements of claim 10, the vanadium requirements of claim 16, the niobium requirements of claim 18, or the tantalum requirements of claim 22.

With respect to JP 09049051, the reference fails to suggest the sulfur requirements of claim 6, the phosphorous requirements of claim 7, the chromium requirements of claim 9 or the tantalum requirements of claim 22.

With respect to JP 11293410, the reference fails to suggest the silicon requirements of claim 10, the sulfur requirements of claim 6, the phosphorous requirements of claim 7, the molybdenum requirements of claim 12, the niobium requirements of claim 18, the cobalt requirements of claim 20 and the tantalum requirements of claim 22.

In short, Applicant believes that a full consideration of the claims of the present application and has not been provided.

In view of the above, Applicant respectfully requests the rejections be withdrawn.

If any fee is due in conjunction with the filing of this response, Applicants authorize deduction of that fee from Deposit Account No. 06-0308.

Respectfully Submitted,

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CERTIFICATE OF MAILING

I hereby certify that this **AMENDMENT** is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231 on

Jan. 25, 2002


George E. George

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

29. (Amended) The component of claim 28, wherein the component is [a component of a pump for moving molten metal] selected from a pumping member, impeller, bearing, post and shaft.

Please add new claim 34.

34. (New Claim) The component of claim 28 wherein the component is resistant to surface dissolution by magnesium in molten metal baths.